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Action research on teaching improv comedy to autistic adults

Developing an online improv comedy course: an action research study

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Developing an online improv comedy course: an action research study

Abstract

I explored the development of a 4-week online introduction to improv course, to verify the fit of the games and exercises used in this short course. I employed practitioner action research to develop an understanding of autistic learning needs. A socio-constructivist framework was used in the teaching, and focus groups were conducted after each class to obtain data. I recruited a total of 17 autistic participants for the Zoom-based improv classes, with groups of three to five autistic adults per course. Five courses were completed, and focus groups were run after each class to discuss the trialled improv training. The data collected identified improvements that participants felt would better support their learning. I found that autistic adults were comfortable learning with other autistic learners, and the gradual, informative teaching approach addressed their needs. An autistic teaching assistant was also found to be necessary. However, there were both desired and unwanted content, as well as contradictions about using online versus offline mode of study, and the necessary group size. The findings suggest that these considerations should be taken into account for adult education programs aimed at autistic learners.

Keywords: action research, autism, improv, theatre, quality education

Introduction

In this study, I investigated autistic learners' needs during a 4-week improv comedy (hereafter improv) course conducted online. Due to the pedagogical fit with broader theatre and drama education, I employed the socio-constructivist framework (Vygotsky, 1978) for teaching and learning. Generally, drama and theatre pedagogy rely on practical participation, regardless of the extent to which this occurs (Heron & Johnson, 2017; Schewe, 2013). In theatre and improv, learning can be explained by considering the internal processes that are challenged by the external conditions of practical implementation of knowledge and skill (Bélanger, 2011). In other words, a game is set that uses the learners' knowledge and skill with an increased challenge that creates a cognitive, internal process (conflict) that is overcome during the game.

Of interest is improv and its pedagogy. Improv is a subset of the wider theatrical improvisation whereby the agents perform live scenes and songs through either premeditated or spontaneously created games or structures (Keates & Beadle-Brown, 2022). The diversity of pedagogies within the field is wide, and many adaptations can support autistic learners across and within these methods of teaching. There is the context that underlies any programme. The pedagogy of the subject depicts how teaching and learning are likely to occur (i.e., signature pedagogies; Shulman, 2005). For example, improv classes may utilise simulation learning over substantial teacher talk. Furthermore, knowing how a game works before a personal exploration of the exercise may be contrary to learning improv on a pedagogical level. This implicates the learners' desire to be correct, i.e., the learners could more frequently be wrong in certain improv pedagogy (denotable in Dudeck, 2013; Arros-Steen, 2022). For example, improv is closer to writing sketch comedy live and, in the moment, would require the performers to understand the mechanisms of comedy (Besser et al., 2013). In comparison, improv that is focused on

improvising short stories would require a different pedagogical practice (Johnstone, 1989). Improv entails a variety of pedagogical practices (e.g., Johnstone, 1989; Halpern et al., 1994). In attending a class with Keith Johnstone, you would expect mostly lecture-based learning with practical demonstrations from peers within the class (Dudeck, 2013). The differing objectives between schools of thought in improv would change matters further, for example, the Johnstonian approach (the impro system, coined by Dudeck, 2013) leads to narrative improvisation, whereas Upright Citizens Brigade's 'comedy improv' is about creating ready-made sketches spontaneously (Besser et al., 2013). The Johnstonian approach focuses on what makes a story compelling. This contains, but is not limited to, being obvious to be within the (circle of) expectations for the audience; being able to be psychotic or perverse to be free to act; and having a character arc (Johnstone, 1989; Johnstone, 2014). Keith Johnstone's approach sought to counter-act the British education system that was deemed to irradicate creativity by seeking freedom to be imaginative (Johnstone, 1989). Nonetheless, this goal can be achieved in a number of pedagogical approaches.

To achieve this investigation into teaching improv to autistic adults, I employed a practitioner action research method, whereby the teaching practice and course manual were adapted each week and during each group or cycle of the course delivery. Each group also experienced the alterations for their course from week to week, because various changes were not specific to a session's contents.

Background

Adult education has long been understood to provide learning beyond the walls of formal classrooms and rather exist in communities and workplaces (Holford, 1995). In general, lifelong learning supports personal and community improvements alongside psychological growth

(Boulton-Lewis et al., 2006). Theatre training frequently occurs external to drama schools and higher education institutions (Berkeley, 2004; Marchant, 2001). The use of theatre has historically been used to aid communities (Bates, 1996) and for the professional development desired by those entering the industry (Shirley, 2012). For actors in training, the student base of all forms of theatre education can be wide, including students with disability and/or who are autistic (Barton-Farcas, 2018; McNamara & Armstrong, 2021; Sandahl, 2019), even if historically situated within less inclusive practices (McNamara & Armstrong, 2021). Theatre education, including community workshops, is readily available in many countries.

Theatre education for autistic adults has been under-researched. Scholarship thus far has focused on theatre as an intervention, mostly for social skills training (e.g., Mpella et al., 2019; Reading et al., 2015). Additionally, the focus can be on theatre-based therapy, or performance (film and theatre) about autistic people (Arendell, 2015), and autistic children are often the population discussed in relevant published work (e.g., Schneider, 2007; Sherratt & Peter, 2002). Theatre pedagogy for autistic people is beginning to be addressed in formal institutions and promoted by relevant trade unions (Equity, n.d.), such as the Royal School of Speech and Drama delivering training for learning-disabled and/or autistic adults that have drama experience (The Royal Central School of Speech and Drama, n.d.). The Royal School of Speech and Drama's course is co-taught by experienced learning-disabled or autistic tutors.

Nonetheless, the understanding of inclusive and accessible teaching in improv training for autistic people has not been studied to date. There is a clear need to better understand the implications of autistic needs in course structure and delivery of improv.

Autistic Adults

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The central population of interest for this study is autistic people, who are categorised by this disability and/or identity (Anderson-Chavarria, 2021; Cage et al., 2020). They have a different communication style to non-autistic people (Casartelli et al., 2020; Rifai et al., 2022), and socialise well with other autistic people (Crompton et al., 2021; Morrison et al., 2019). Sensory sensitivities are a key experience for autistic people (Sibeoni et al., 2022), which links to their monotropic brains (i.e., single attention tunnel, Murray, 2018). Autistic people have a wide range of needs in life, including in education settings (Hume et al., 2022; Selke, 2019), and may need adapted communication to suit their communication style (Cole, 2021). Hence, autistic people can benefit from clarity through structure (see the SPELL framework, Beadle-Brown & Mills, 2018). Therefore, there could be a need to implement and clearly state a solid structure and learning goals of a course, class, or programme, and it may need teachers knowledgeable about autistic people (i.e., to avoid thin-slice judgments) (Sasson & Morrison, 2019; Morrison et al., 2019).

Autistic individuals have diverse support needs and experiences throughout their lives, including education. The population of autistic individuals is heterogeneous, and there are no appropriate categories that can adequately stipulate any autistic individual's needs. This is due to the dynamic and fluid nature of their needs (Keates et al., 2024; Keating et al., 2023) which has been addressed within an education setting (Lubas et al., 2016). Adapting to autistic learners would meet the fourth Sustainable Development Goal, which is to “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all” (UN OWG, 2014).

Autistic learners need to be able to say their thoughts freely or have someone voice their beliefs or queries when struggling to phrase questions or statements (Pearson, Rees & Forster,

2022). Therefore, it helps to avoid rumination and provide validation through knowing with certainty that you are correctly engaging in the work, that you express concerns, and that others are experiencing the learning similarly (validation from other autistic people; Pearson, Rose & Rees, 2022). Echoing Rossetti et al. (2008), autistic people need the opportunity to express themselves in a way that will work, possibly due to fluctuating communication needs or goals.

It might be suggested that adequate adaptations could help all learners. Anyone could improvise unwelcome content (as within all forms of creativity, appropriateness is defined by the social group, Sawyer, 2011), especially for a new improviser (who is more susceptible to being scared). Thus, everyone could benefit from the need for boundaries about content. Parameters about the course and each session are promoted in education research (e.g., providing the aims and objectives of a class, e.g., Petty, 1998, pp.343-355).

Consideration of the heterogeneity of opinions is necessary. For adult education, accounting for the variety of needs to enable autistic learners will improve accessibility.

Theoretical Framework

In my practitioner action research, I employed the socio-constructivist framework for teaching and learning (Vygotsky, 1978). This framework emphasizes social interaction and collaborative learning. It allows us to provide tailored support based on individual needs and address the learners' Zone of Proximal Development. To facilitate the learning process, we need to structure the course, provide scaffolded instruction, and incorporate cultural context, including the 'autistic culture.' In this framework, learners actively construct their understanding and take ownership of their learning. The learning process involves cognitive conflict or dissonance and uses problem situations that enable learners to engage in open conditions and use their prior

knowledge in new situations. This facilitates students' discovery and exploration, driving their learning.

A key factor is that learning is explained by the students' internal cognitive processes that are met with external social conditions (Bélanger, 2011). Learners engage in shared projects or problems through conversation or action (Greeno et al., 1996). I suggest that this framework exercises cognitive conflict or dissonance and uses problem situations (or learning situations) that enable learners to engage in open conditions that use their prior knowledge in new 'realities' or critically perceived circumstances (Garfield & Ben-Zvi, 2009). This facilitates students' discovery and exploration that 'drives' their learning. The 'failure status' (Bélanger, 2011) within this framework is that they are a source of learning because they generate cognitive conflict. Piaget's beliefs of cognitive development match this by the tendency of the learner to adapt to the 'environment' or learning task (Simina, 2012). As per Dewey's (1938) spiral sequence of learning, students cyclically attend to the complex to simple to complex knowledge apprehension, revisiting knowledge in a variety of ways.

As will be noted, I used an autistic teaching assistant with experience in improv. Vygotsky (1978) discusses how social learning is furthered with teacher guidance, or 'more capable peers.' However, the use of a teaching assistant can have other purposes that meet autistic people's needs. For example, they could have been used as emotional, pastoral support or encouragement to participate; however, these were not necessary for the participants.

The Current Study

To date, there is a scarcity of studies focusing on improv and autistic people. As a consequence there is a need to develop an understanding of autistic adult learners' needs. In this

study, I ran a 4-week online introduction to improv course, seeking to verify the fit of the games and exercises used within this short course. Specifically, I explored:

1. The functionality and validity of the specific exercises and games, and the potential for alterations;
2. Whether the implementation of the class content and course needed to be improved;
3. The factors that contributed to the accessibility of improv as an intervention and class.

Methods

Participants

I recruited 17 participants (range: 25 – 56 years of age, $M_{\text{age}}(SD) = 32.56(10.98)$). There was a breadth of gender identities (eight male, five female, and four non-binary). Participants lived across the world: three in Australia, five in the UK, seven in the USA, one in Puerto Rico and one in France (but from Russia). Most participants were White ($n=13$) with three mixed ethnicities and one participant identifying as Hispanic. Ten of the participants had a formal autism diagnosis and seven self-identified as being autistic. I did not request information regarding socioeconomic status or other support needs or disability from the participants.

Materials

Sample characteristics

I collected information regarding the demographic characteristics of the participants (completed before starting the improv course, containing six questions with some follow-up options, where applicable). The questions asked about gender identity, age, ethnicity, diagnostic status, and prior improv experience (participants were excluded if they had prior improv experience). No one had prior experience in improv (one participant had learned improvisational

dance, but this was not deemed to be the same). All participants were able to communicate verbally. Non-speaking autistic participants were not able to be recruited due to the course being online. The online nature of the content restricted the opportunity to experience non-speaking scenes. Whether participants had co-occurring needs or intellectual disability were not asked. The recruitment process did not hinder people with co-occurring needs from participating.

Practitioner Action Research

Practitioner action research solves ‘real-world problems,’ connecting social theory to solution-driven action (Denscombe, 2010). Simply, the method involves planning, acting, observing, and reflecting (Lewin, 1947). Practitioner action research is completed by the teachers themselves (Anderson et al., 2007; Denscombe, 2010). The action research cycles were weekly and the findings from earlier cycles were used to adapt subsequent deliveries of the course, to improve the experiences over time both within the earlier groups and for groups that started later. These changes resulted from feedback regarding the class’s delivery or how well the content had worked, with the teacher reflecting on what could be changed based on these clear comments. I ensured the necessary changes were explicit in data collection each week. This method aligns with the socio-constructivist framework (Vygotsky, 1978) by fostering more meaningful and collaborative learning experiences, empowering individuals to build knowledge together and reach their full potential in improv.

Improv Classes

The course was developed based on Keates (2017), review of the practice of improv with autistic people, and piloting. Thereafter, it was adapted accordingly as reported below. There were four weekly classes held online via Zoom, which consisted of games and exercises, discussions and a 15-minute break before a focus group was held to discuss the class. I organised

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sessions to run at a convenient time for all participants in the group. I advised participants to arrive earlier if they were not used to the technology, and they were told that technological issues were likely (and to be overcome together), and the sessions were about the fun of the exercises (to overcome the burden of being ‘funny’ or doing anything ‘right’). The goal of the course was to introduce the learners to improv, to enable them to improvise open scenes. Three of the four groups included an autistic teaching assistant.

In the first week of the course, the group played silly games about getting to know one another without recalling facts about other participants or ‘small talk’ and focused on supporting each other. The main aim of this session was to understand and practice the main principle of improv, ‘Yes And...’. By which, the goal was for learners to develop acceptance of self and others in the moment, in order to spontaneously construct theatrical scenes. The end of the session was an open discussion that enabled learners to communicate their thoughts and ask the teacher questions.

In the second week, the warm-up exercises were the same games as before to provide some consistency. The contents of this week were focused on two core topics: ‘failing well’ and using one-word-at-a-time exercises. Keith Johnstone’s (1989) pedagogy creates space for failure for entertainment, which has been employed with autistic children through the ‘failure bow’. As for the first week, the session ended with an open discussion.

In week three, the opening exercise was to recap the group’s knowledge and experience using indirect questioning. Two new warm-up games were provided. In the main section of the class, the teacher focused on gibberish exercises (made-up language that still expresses an emotional narrative) and ‘heightening’ (or escalating the situation or comedy of the scene). The class ended with an open discussion and an opportunity to ask questions. Some content was

removed for the three groups following the first group identifying too much content and other difficulties. An autistic teaching assistant joined these groups' courses from week three due to the difficulties experienced. It was only the first group that did not have a teaching assistant.

In the last class (week four), the same warm-up games as well as indirect questioning were used. In addition, a new warm-up exercise had learners gradually express more of a given emotion for each mimed present they received from a partner. The main section aimed to practice 'emotional heightening' and perform open-scene work. Pairs of learners could opt-in to perform for one another, after which the teacher posed questions and the 'audience' provided positive feedback (as per Wunder, 2007). To end the session, learners played a game of revelations; the purpose of this game was two-fold: i) *discover* the location of eating together by co-creating this reality, and ii) practice the second person's reaction defining what becomes a revelation. An open discussion was employed after this game.

Focus Groups

I used focus groups to obtain general insights throughout the classes. The focus group design was based on Krueger (1998), i.e., the schedule was designed to form a 'narrative' to the session (creating a logical pathway for the discussion) and ensure all data available was collected (e.g., rehash questions, and ending summaries). The focus groups were focused on discussing each improv class after the session. The schedule of questions was piloted with autistic colleagues. Data from online focus groups are comparable to in-person data collection regarding the diversity of themes generated (Richard et al., 2021).

The focus group took between 30 and 45 minutes for the first three weeks, and about 60 minutes for the fourth week. The schedule of questions was the same for each week, except for

the fourth class, which included an in-depth exploration of the participants' thoughts about the course after its completion.

The participants consented to be recorded each week and were digitally recorded via Zoom and uploaded to MS Stream (transferred automatically afterwards to the university's secure SharePoint storage using the MS Office 365 Streaming tool).

Procedure

The Ethics Committee approved the study using the online course in October 2020. Afterwards, I recruited participants onto the course until the recruitment ended in May 2021, during which groups of four were allocated and began their course when possible. Each week, the participants developed an understanding and practice of improv. The alterations of the course manual were implemented for the next group, and I implemented any adaptations that could be applied to future classes within a course. The participants took part in the classes and focus groups for four consecutive weeks over Zoom. All participants were informed of changes a week before they occurred (i.e., the schedule and the addition of an autistic teaching assistant for weeks three and four).

Data analysis

I recorded the focus groups verbatim through Zoom over the university's secure, online system. I analysed the data using Qualitative Content Analysis (QCA; Bengtsson, 2016), which supported gaining an understanding of the specific needs of the participants. All data were analysed using NVivo, version 12 and Microsoft® Excel® (version 2111) to support the coding process. Identifying information about participants was redacted, anonymised or pseudonymised to ensure anonymity.

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Independent coding was conducted with two impartial researchers (from different fields of interest) who coded 20% of the data. This supported forming consensus on the themes generated to be robust in the interpretation, i.e., if another research team were to conduct the same study, they would identify similar themes (transferability, Lincoln & Guba, 1985). In the study, the inter-coders implemented their analysis through different fields of interest and perspectives. We discussed the themes generated and established a complete agreement. These have been reported as response themes, which were generated from participants' data.

Results

My hope with this action research study was to better understand the adaptations autistic adults need when learning improv. Improv has been practised by autistic people, including for comedic effect (Keates & Beadle-Brown, 2023). Therefore, how this is learnt is of interest. The findings from this study could help us to understand autistic learners' needs, which may improve our practice in lifelong learning. For the learners, it was possible to assume that there would be benefits from participating in improv classes (Keates & Beadle-Brown, 2022), so they could attend to obtain these gains. Accordingly, the learners attended the class for their exploration, guided by their personal desires. I did not ask about their reason for attending, but it could be assumed that no one had a definitive wish to become an improv comedian (albeit possible with further training). I had hoped that learners would discover a pathway into improvising as a performance (a distinction from improvising for a rehearsal process).

Action taken

During each group's course, actions were taken to address the learners' needs. By encouraging participants' social interaction and engagement, experiential learning was better

positioned for successful improvisation, as indicated by Vygotsky's (1978) socio-constructivist framework. This indicates that specific exercises and games required modifications, and the class content and course needed improvement for their functionality and validity. The actions taken were informed by the participants' responses and can be mapped against the response themes mentioned below.

Firstly, not all comments were about practices that needed adapting, rather what is currently working in the classes. For example, the teacher did not engage in small talk and nor did the warm-up games create anxiety through using games that required learners to remember facts about one another (stated in week one). By doing so, this employed a low-arousal learning environment (e.g., McDonnell et al., 2015; Sagers & Ashburner, 2019; Waisman et al., 2022). Similarly, within the same week's class, due to the course being conducted online, there was a need to have time between the use of break-out rooms.

Communication was an important aspect that required action. This indicates the role of language as a powerful tool that shapes thought and understanding (Vygotsky, 1978), which for autistic learners meant suitable interactions and communication styles employed led to an autistic cultural context. Autistic communication is dissimilar to non-autistic systems of interpretation (e.g., not understating autistic action vitality, Casartelli, Cesaro, et al., 2020; Casartelli, Federici, et al., 2021; autistics not using backchanneling, Rifai et al., 2023), hence adopting appropriate communication was the bridge between external, social interactions and internal, cognitive processes (Vygotsky, 1978). In emails, the learners needed headers, bullet points, and clear aims and boundaries of the course and games. This was provided to participants for each week. Furthermore, instructions could be more extensive and presented through various means, such as using written instructions. This need was met through screen-sharing bullet points of the rules of

the game. This enabled learners to read, and then hear the instructions. A temporal gap was used, and the teacher looked for people to finish reading. For autistic learners to comprehend and process, adequate time must be provided (the monotropic mind, Murray et al., 2005). Through this process of internalization, individuals take in external knowledge and concepts, transform them through their own experiences and understanding, and integrate them into their existing cognitive structures (Vygotsky, 1978). Additionally, safety within scenes was stated as important, as the first group identified some autistic people might engage in inappropriate material. This could happen with any learner with no previous improv experience. Nonetheless, clear boundaries were stated for each group thereafter, with the availability to stop scenes without question.

The use of discussions was employed successfully, but more opportunities to discuss were required. The teacher inserted additional points in which reflection was possible. This was limited by the time available. In any case, this meant there could be meaningful dialogue, which encouraged open-ended questioning, active listening and shared thinking (Vygotsky, 1978).

In the third week, the first group found the content too much, both in quantity and a series of games about using made-up languages that were negatively experienced by one participant. This was removed for all other groups. In addition, for emotional support, an autistic teaching assistant with improv experience was hired to support the classes from the third week.

Sometimes the participants' desired actions were repeatedly requested, which identifies that the teacher was not yet able to meet this need. However, all needs were adequately met by the last group based on no actions being requested. Admittedly, this could be due to less confidence in stating their needs, although other means of communicating were provided (i.e., in addition to the focus group, there were log forms for another aspect of the wider project). The

log forms would have identified their needs not being met but were not used in this way and consequently not analysed for this study. The main aspect that repeated across groups was the need to know how to play a game. This is contrary to improvising, as no game should be played in one way.

Response themes

I discovered six themes from the data based on responses from participants about their needs. These themes also highlight specific accomplishments that can be applied to other improv and adult education classes. They also indicate factors that contribute to the accessibility of improv classes for autistic adults.

The themes were (table 1): ‘Allowing participants to be autistic’; ‘Gradual and informative teaching addressing autistic needs including discussions’; ‘Desired and unwanted content’; ‘Online/Off-line polarity’; ‘Group size demur’; and ‘Teaching assistant desideratum’. As an action research study, many of the needs were developed through the first two groups; therefore, many references to participants are within the first two groups.

Allowing participants to be autistic

Autistic individuals must be allowed to be themselves to meet their needs. In a supportive environment, they feel comfortable and learn better without societal pressure or traditional icebreakers. Being treated like adults is appreciated.

Can I add that the fact that I know that, you know, the group’s autistic makes such a big difference, because ...I know, it doesn't matter to me, because I- we're all [autistic] - it doesn't matter. (Madelene, *week two*)

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Engaging in action research meant that the teaching had an extra component of promising to deliver and then doing so, which in turn built a stronger, positive relationship with the participants. Thus, the action research itself created a positive effect on learners, as they appreciated the feedback from the previous week being taken onboard (see ‘Gradual and informative teaching addressing autistic needs including discussions’). For example, having needed a fourth person for various games, one group wanted the teacher to play to enable everyone to be actively involved. The teacher joining in to make up numbers so everyone could play was helpful (albeit with a disadvantage). In addition, learners noticed the teacher was able to provide a framework for games or exercises quickly upon the need arising; this was a consequence of the teacher implementing the requested change. The participants concluded that the teacher knew how to help autistic learners (i.e., the teacher supported people, forming a safe environment). This emphasises the importance of the ‘cultural’ context of autistic learners (as per the socio-constructivist framework).

So like, it's nice that we've been able to sort of build that with you involved as well, rather than it sort of being in spite of you (laughs). (Hayes, *week four*)

Learners commented that the teacher and other group members were accepting and non-judgmental when one person was not able to participate in week three and found it reassuring that the group was supportive in case, they themselves were to have bad experiences. Madelene stated that it was because of how the group was run, their guard was down, and they were not overthinking.

I would say that because of- how well this group has run- I know I have let my guard down, so where normally I would look at someone and go, ‘Why are they you know,

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touching their arm ...I've noticed- especially this week that I'm not doing that ... because how comfortable it was made. (Madelene, *week four*)

I really liked that you listen to our- individual questions and individual needs.

...sometimes they are run by someone who just assumes what everyone's needs are because they met one autistic person... (Julia, *week four*)

An interesting point was made that the taught humour must work for the autistic participants. Some learners were less able to be 'mean' to the characters or found the humour of an unfortunate situation occurring not funny. Therefore, they would need to learn via their comedic sensibilities (or have the learning be only to learn about what others find funny).

It's just like if that's not really how humour works for us, then that's not gonna really... work, particularly as a sort of beginner exercise. (Cassidy, *week three*)

Gradual and informative teaching addressing autistic needs including discussions

Participants discussed the gradual and informative teaching style (i.e., the learning progression from one week to the next). Therefore, the participants' needs included a low threshold for entry and incremental teaching using technology advantageously. This provided tailored support based on individual needs and the Zone of Proximal Development (Vygotsky, 1978).

I felt more flow this week, so I definitely felt the foundation of last week. And then the progression to this week helped build... (Kamila, *week two*)

Participants identified a variety of ways for the teacher to meet the autistic learners' needs that should be prioritised. These included addressing communication, clear boundaries (in

a variety of ways), and using a plethora of ways for information processing. All of which would support their learning through scaffolding (as per the socio-constructivist framework).

Overall, a recurring important factor was their need for the parameters of the course and how it is run, the games and their aims, and providing clear boundaries (of games and their content). Therefore, the teacher needed to provide adequate instructions through visual and audio methods, and via examples and demonstrations. Using clear, effective communication for autistic learners supports less confusion, surprises, and consequent upset. Participants asked for all exercises to have written instructions, as it was confusing without this clarity. Hence, they identified that clarity of instruction increased through using audio and visual strategies. Instructions and explanations did need improving on a few occasions (e.g., better explanations were possible, such as being more in-depth). Understanding terminology was crucial in explanations of games and exercises, so concepts could be described in multiple ways to avoid confusion. This better supported the learners' processing and comprehension of the topic (considering the monotropic mind, Murray et al., 2005). By which they could then develop co-constructed knowledge and skills that are honed through shared interactions and experiential learning (Vygotsky, 1978). Duncan (*week one*) stated, "Maybe do more visuals, do more examples."

At times, games and exercises were more nuanced, and so the direction of the game was less clear. This caused some concern for learners. Therefore, participants stated that having a clear introduction, knowing the goal, and having a demonstration would help. At one point, a learner stated the instructions were more like 'baby bird out the nest, you'll be fine' (Kamila). If one participant had known the goal of the gibberish exercises was to access the meaning of what was said without words, they may have had a better experience of the series of games.

Nonetheless, in group one, Hayes stated how trigger warnings are necessary for games that may cause the learner to dissociate (a mental process whereby one disconnects from one's thoughts, feelings, memories, or sense of identity, Putnam, 1989). Unfortunately, Hayes expressed that they experienced this from the series of games.

The participants mentioned communication regarding emails. Learners wanted clear, concise emails providing a bullet-pointed outline of what they needed to know (including reminders), highlighting important aspects (e.g., emboldened text) that state the class aims and other useful information. One participant in group two indicated a preference for knowing the group size beforehand. However, an appreciated communicative success was warning the learners about changes.

A pre-session like um, sort of, what we'll be covering this session: major bullet points printout, like before the session, might be really useful. (Cassidy, *week two*)

There were successful strategies that were in response to the feedback received. For example, participants stated the broadcast message feature in Zoom worked well for them (to say when the game was to stop or continue with a new partner). Another success was using a visual (or recap) strategy for memory (in one of the games), as these supported learners to feel less pressured. Once more, this links to autistic cognition and the monotropic mind (Murray et al., 2005), with the potential for overloading their working memory if such strategies were not employed. In essence, this suggests the need for a stable, predictable learning environment both during games and exercises and during the instructions.

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The text warning that popped up, that worked well. It wasn't really too in your face, but-. So, you could keep going, but you knew, 'Oh, this is going to cut off in a bit.' (Kasey, *week two*)

Learners remarked on the teacher having built a safe space that helps more difficult learning to be attempted. Specifically for improv, this was helpful as being forced to try it anyway (when little instruction was given) led to improvising. This process of scaffolding their learning with understanding improv provided temporary support and guidance to become autonomous or self-propelling in improv and the scenes.

For improv, I guess ...I'm forced to make it work if that makes sense. At least that's how I felt, I felt more... it was more uncomfortable. But I feel like it it's good practice, for improv. (Duncan, *week three*)

Autistic people have a variety of needs external to appropriate communication that supports their learning. One group stated their need for 'neutral moments'. After exiting the breakout rooms, participants were quickly led back into the rooms for a further exercise; however, the issue was explained in metaphor as a car needing to change gears, you must go through the neutral gear first. It may be only 15 to 30 seconds, but it helps. Due to their monotropic mind (Murray et al., 2005), processing what just happened before entering something newly created a more stable learning environment.

Hayes: ...you put like a little gap in just so you've got time to sort of reset and go into the next- thing, rather than just having to change lane.

Cassidy: Neutral moments. (Hayes and Cassidy, *week one*)

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The teacher provided linking moments between content, which supports learners regardless of whether on-purpose or accidental. Therefore, it is advocated by a learner to make the connections for them or with them (i.e., facilitation of learning, Socratic method). Similarly, another learner stated they wanted prior learning emphasised to preface building on previous classes to add new skills. Therefore, some scaffolding worked and at other times more was required for the learners.

I think just adding the preface that, we should, like, build on the previous classes- before an exercise. So, just to help emphasize like the building aspect of it... (Glenn, *week three*)

Participants remarked that they needed to be kept active to feel engaged. This would support them to not ruminate about their 'standard' (i.e., being good enough) by getting them involved as much as possible. This was stated in week one, as circumstances meant they were watching other learners improvise.

Just the waiting a few minutes for your turn. And then you listen [to] other people and thinking, 'Oh well.' ...am I up to the standard... (Crystal, *week one*)

Participants requested more feedback from the teacher. In week three (which was seemingly the more difficult week for most groups), the participants of one group wanted more teacher attention. For example, entering the breakout rooms for teacher observation, and offering 'challenges' and feedback.

The learners requested more opportunities to voice questions. However, the discussions implemented were validating, and they helped to homogenise the group and develop shared learning. Vygotsky (1978) posited collaborative learning experiences are where individuals learn

from and with each other. Therefore, learners were able to gain from one another through the use of discussion, whether they felt able to ask or state their query or comment.

And like feedback you gave to Logan about point five and five really helped me realise that I'm doing that. (Duncan, *week three*)

In general, the teacher enabled a playful state. Learners stated they quickly got into a playful state on the sterile Zoom platform because of the teacher (week one). Therefore, the teacher created opportunities to be playful.

...we could all play together and improvise together and work together. (Lennox, *week four*)

Desired and unwanted content

Frequently, the participants desired more understanding of quality markers, e.g., how to do a game or exercise. In the first few weeks of the first two groups, initiating scenes could be more difficult. They asked for more support regarding this. The group that contained learners that struggled more with fundamental aspects of improvising (e.g., yes and) needed more content between games to slow down the learning and help reach the ability to start scenes themselves. Consequently, the scaffolding needed for some was not always adequate or available.

...echo that just- to handle that [game]. Just-just kick off from this [provided idea]. Yeah, 'cause you say it's not so much where you start from, it's where you keep going. (Gabriel, *week one*)

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For desired content, the learners suggested that there was a need to be taught about ending the scenes (or conversations in life), to provide a way to start improvised scenes, use realistic scenes closer to their life, and learn about comedy (as a potential option).

Many learners acknowledged the scope for applying learning to life specifically, e.g., as an applied improv course. This would mean using specific, targeted learning. For example, cope early on with negative experiences, fear of failure, and managing rejection.

Learners suggested that some concepts delivered could have been broken into smaller segments. There could have been more steps to some concepts and needs to be able to do improv (e.g., start with a mundane topic that builds towards the silliness to support people with issues with being weird). This aspect links to both the need for accessible language that complies with an autistic system of interpretation and increased scaffolding.

Even language, like, I put escalating in brackets next to heightening... I think is easy to understand. (Hayes, *week three*)

There was a need to remove triggering content. There was potential for one exercise to be triggering for those who have been conditioned and taught to suppress their 'strangeness'. Following one participant reporting that they experienced negative dissociation from an activity that encouraged them to be 'weird', this exercise was removed as a precaution. For others, the content was an issue due to there being too much content for one session (the session's content was halved for all other groups).

I feel like this was a session where I feel like it could have been two sessions worth of material, maybe? Like, I think, I think more practice on every single one would have been helpful. (Cassidy, *week three*)

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The major issue in the course was the series of games that were triggering for a participant. The undesired content was not only with this participant but with others stating difficulties. Although there was noted value in the games, the timing was bad, and the teaching mode was inappropriate for its delivery (in-person would have been better). With this in mind, experiential learning was not possible for the learner, so they could not bridge the social interactions from within the games to cognitive processes of learning about aspects of improv. However, one participant (Julie) gained from the exercises and enjoyed the series of games, suggesting the importance of the game's accessibility.

Like, put it, put [written down in a notebook] fear of being hurt by my flatmates. Fear of being ridiculed. ...I found very, very difficult and I put things like being being socially punished for this kind of behaviour before. For being silly or transgressing socially.

(Hayes, *week three*)

Online/Off-line polarity

Learners expressed contrary experiences of the teaching mode with some participants wanting the classes to be held in-person. It would have been beneficial for certain exercises to not be at home with flatmates nearby. The fear of abuse from others they lived with was great. Therefore, the need to not conduct such exercises online that would have been heard by flatmates as 'weird' or not 'socially appropriate' must be completed in private (or as learners suggested in a community hall). In addition, the technological issues with Zoom are magnified by autistic needs (i.e., sensory needs). This included audio processing, whereby understanding what someone said was more difficult due to poorer quality sound. Both of these experiences identify the need for accessibility for autistic learners; they need to be able to participate in to experience and be able to collaborate to construct the knowledge through social interaction.

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I see the thing I really struggled with, with the same audio processing 'cause you know everyone's mic- quality is a bit shaky and unclear. (Cassidy, *week one*)

Contrarily, participants noticed the benefit of being online using Zoom. This is further made clear when participants may be more sceptical or scared about attending the class.

I think Zoom worked well. I don't know if I would- have bothered to leave the house for this. (Crystal, *week one*)

Group size demur

An additional query that arose from learners was about the group size. one group had an immediate member drop out, and this meant a quarter of their group was not going to attend. Therefore, the query was about whether a buffer for dropout would be advisable (as this may be common for autistic people).

Four is right on the edge, 'cause the fact if one drops out, it's gonna get [tough]...

(Gabriel, *week one*)

Conversely, another group stated that four was the perfect number. They queried whether a larger group would be hindersome to their learning.

...this is the kind of group size I like. I can- I struggle to function in groups larger than this ...It starts getting more confusing knowing whose turn it is to speak or what's expected of you. (Hayes, *week four*)

Teaching assistant desideratum

The online classes were small groups, so there was no intention to use a teaching assistant. This was not a problem for the first two weeks. It was an issue when a participant

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experienced an evolving triggered state of being. In the focus group, they expressed their need for someone to be able to take them into a breakout room. Fortunately, the content was removed and no one else needed a teaching assistant. The precaution was taken to hire an experienced autistic teaching assistant with improv training (from week three for all other groups). This made sure there was availability for emotional support in the class from week three, which may have been useful for all groups' sessions in the event of a potential issue.

... when I last did [participated in] my study, and I was lucky enough to have someone support me as an add- another adult. ...so even if it was on Zoom, if there was someone else to accompany, who could always go to a breakout room with that one person just to have that moment of 'Oh my gosh, I can't believe I felt that.' And then you go back into it a lot easier. (Madelene, *week three*)

Discussion

I sought to explore the experiences of autistic adults participating in improv classes for the first time, addressing their needs each week and improving their experience of the classes through action research. The key findings were that autistic learners need adaptation and their needs to be met, these include being allowed to be autistic, having a space to rest or recuperate with an accompanying person if triggered, appropriate group size and mode of study, and use of gradual, incremental teaching (research questions 1 – 3). There was heterogeneity of needs regarding teaching mode and class size (research question 3).

Measuring the action taken

The autistic learners from the last group in the study did not suggest any required alterations to their learning procedure. Albeit that this might be due to their personal traits that

impinge on the availability to ask for changes, it is possible that this was not the case. I hold this conviction due to the opportunity to write their negative feedback in their log forms (another aspect of the study), which was not pertinent to the analysis of the action research. Furthermore, the last group contained multiple people who could have provided suggestions. I believe that we can assert the pedagogy implemented by the end of the study was successful, because no adaptations were being requested of the course manual or the delivery of the classes' contents by the last group.

Cultivating an autistic lifelong learning environment

Being autistic in the current social world means requiring the systems and structures to enable the various aspects of the autistic way of being. First, adapting the communication style of non-autistic education professionals has been demonstrated in the study (Casartelli et al., 2020; Rifai et al., 2022). These adaptations for communication to suit autistic communication styles (Cole, 2021) have been demonstrated as effective strategies to provide a better learning environment. Clarity of communication from being concise, and clearly stating what is important assisted autistic students in their course, which would be helpful for non-autistic learners too. As per the socio-constructivist framework, knowledge is constructed (Vygotsky, 1978) and thus needs to be understood via comprehensive social communication. Similarly, it has been indicated by the participants in the study that with their ease to socialise well with other autistic people (Crompton et al., 2021; Morrison et al., 2019), then the learning process was experienced positively.

Teachers must understand autistic needs and current ways in which they can succeed, i.e., many thrive more with other autistic people. For example, participants in the study identified sensory sensitivities (Sibeoni et al., 2022), where the prospect of overloading could reduce the

capacity to learn and engage (i.e., the monotropic brains or single attention tunnel, Murray, 2018). In addition, I found that autistic people have differing needs for group size, with one side of this requirement relating to sensory information. If there are too many people, then processing enough to understand when it could be their time to talk would be more difficult. However, due to the social world, autistic people might already be overloaded (or another reason) and will be unable to attend. This results in a smaller group than intended. Another aspect teachers should know is that there is a clear need for implementing a solid structure and stating the learning goals of the course (see the SPELL framework, Beadle-Brown & Mills, 2018). This offers autistic learners the clarity they need regarding the parameters of the course and content. Accordingly, teachers must be knowledgeable about autistic people, including avoiding thin-slice judgments (Sasson & Morrison, 2019; Morrison et al., 2019).

Autistic people often have had negative past experiences, including where their needs are rarely met (e.g., the autistic person is perceived as having deficits and should change to meet neurotypical needs; Tan, 2018). In contrast, in this study, some participants asserted the focus group was immensely helpful as a form of discussion. In a natural setting, improvisers may gather in a pub for community interactions (as in Quinn, 2007). This could meet the autistic need of freely speaking their mind and releasing such ruminative tension (albeit that the focus groups were semi-structured, and the same most weeks, whereas a ‘social’ post-class would not be, nor necessarily in a suitable environment).

Autistic learners' negative past experiences affect their learning. Safety concerns arise when learning from home due to victimization issues like mate crime (Forster & Pearson, 2020; Pearson, Rees & Forster, 2022). Autistic groups provide a safe environment, contrasting the potential feeling of being unsafe when learning improv at home. As a consequence of this, the

learners who cannot access content will not be able to internalise the learning delivered (Vygotsky, 1978). However, those without such concerns experienced the home setting and lack of travel as an accessibility success.

In any case, there will probably be reluctance from autistic learners to attend the (first) class, so programme providers should offer an online introductory class on the subject and transition to in-person classes. This supports both learners who need in-person classes (knowing they will access through this mode of study) and the reluctant learner. Content would need to be adjusted for these modes of study. In any case, this is no different to the inquiry regarding group size, as course providers can offer small and large group sessions. The debate around this issue is about not pressuring the learner to participate too frequently. This is similar to offering choice and control (akin to Mansell & Beadle-Brown, 2012). Concerning the socio-constructivist framework, this is comparable to zones of proximal learning and scaffolding (Vygotsky, 1978), as learners can practice improv in increasingly larger groups over time. For instance, in a small group, there is no choice if no one opts to answer, ask, or begin an exercise. In a large group, the anxiety may be around wanting to participate, not knowing if they can or should (i.e., a judgment on their frequency of participation). In addition, there are general anxieties about knowing when it is their turn to communicate (found in this study), e.g., with many people vying for their time to verbally participate. Although this is based on practical learning and discussions, this may translate into the teacher's attention that would be otherwise required for different subjects.

In any case, this study has identified numerous adaptations to address autistic people's wide range of needs in one educational setting. We must consider the differences between the autistic way of being in relation to education and the implications of the social world upon them.

Implications for practice

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There are three levels of implications. These are (i) teaching improv, (ii) teaching drama and theatre, generally, and (iii) establishing good practice in adult education more broadly.

I propose that those teaching improv can learn from this study to form good practice within the variety of pedagogical practices around the world. Autistic learners do attend improv classes (Keates & Beadle-Brown, 2023). Therefore, there is a need to use an informed practice. Clearly, within this study, there was a pedagogical dilemma through this duality of knowing how to correctly complete a game and improvising. Nonetheless, in some improv pedagogy, this may be stressed less. Removing the need to be right is supportive, but the absolutes of some pedagogy might better suit some autistic learners. However, the goal may be to improvise without consideration of how it will be implemented (e.g., for constructing narratives or sketches). For example, Scruggs & Gellman's (2007) book on improv focuses on the process, which is stylistically opposed to the writerly improvisation from Upright Citizens Brigade or the Impro System. In any case, improv may offer a level of certainty within uncertainty, but to what extent that is may depend on the specific curriculum.

Theatre training has proved to be difficult for some autistic learners (Keates & Beadle-Brown, 2023). Therefore, there is a strong requirement to improve theatre training more widely. The findings from this study can guide theatre pedagogy to be inclusive and understand autistic learners' needs. Similarly, adult education can be informed by these findings. Many of the results reported are not specific to improv (e.g., communicating boundaries and how to inform learners about learning objectives and any upcoming changes). To create a better learning environment for autistic learners, I advise them to listen to their needs and provide adequate adjustments (or be transparent and explain why it is not possible).

Noticeably, there are clear transferable tools and strategies from the study's pedagogical approach that supported or could better meet autistic learners' needs, which should be executed across all pedagogical practices. For example, disabling the availability for self-judgement and intra-group comparisons, and using improv as a *justification* for exploration may better enable learners safely to go beyond their boundaries. Clear, concise communication (e.g., written emails) for autistic learners is another system of control that helps them to feel secure in how they are executing tasks and knowing about what they are doing. I recommend this strategy to enable learning and to accommodate the black-and-white thinking style (Cooper et al., 2018) or autistic information processing style. By this I mean the 'monotropic mind' (Murray, 2018) and the preference for local processing or strength at being detail-focused (central coherence, Happé & Frith, 2006).

I conclude by outlining recommendations based on the reflections and implications of the findings through five instructional suggestions for adult educators (see Table 2). I believe that these recommendations can be helpful for all learners and that the developed pedagogical practice described can be applied to a variety of educational institutions and community-based lifelong learning. Nonetheless, I posit that these recommendations are most useful for autistic learners. The findings of this research emphasize the importance of creating positive, neurodivergent-affirming learning environments as per how the autistic participants identified.

[Insert table 1 near here]

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Table 1: Five Instructional Implications for Adult Educators.

<p>Clear, concise communication is crucial for autistic learners. Adult educators must provide multiple ways of explaining concepts and activities, and communicate about the upcoming sessions and the course including highlighting the important aspects (i.e., using bullet points and boldening the key points).</p>
<p>State the parameters and boundaries of the tasks, to ensure the learners know how to be successful or understand if there are no success criteria.</p>
<p>Ensure there is a way for discussion so those not able to construct their questions can have them asked by someone else.</p>
<p>When necessary, a ‘more capable peer’ might help, either through peer learning, demonstration, or collaboration and encouragement from the peer, teaching assistant, or even the teacher (where appropriate).</p>
<p>Remove any chance of self-judgement and intra-group comparisons, and help learners safely go beyond their boundaries. As an example, this means that challenging ways to present learning should be planned to occur later in the sequence of the course. The way to encourage autistic learners to go beyond their boundaries is to avoid rejection; in improv, this was a core feature for consideration, as we embraced failure. It is possible that education can adopt learning through failure in order to embrace it. However, this needs to be done well to avoid learners experiencing rejection.</p>